

WHAT IS CLAIMED IS:

1. A print control apparatus which can communicate with a plurality of printing apparatuses via a predetermined communication medium, comprising:

5 first converting means for converting drawing information which is required from an application into independent data which does not depend on each of said printing apparatuses;

10 a plurality of second converting means for converting said independent data into print control information that is peculiar to the printing apparatus that is selected and for transferring the print control information to each corresponding printing apparatus;

15 discriminating means for discriminating an occurrence of a print processing error by monitoring a print processing state of any one of the printing apparatuses for a time interval from a start of the converting process by any one of said second converting means; and

20 control means for selecting any one of said second converting means corresponding to the set other printing apparatus when it is determined by said discriminating means that said print processing error has occurred in said one of the printing apparatuses.

25

2. An apparatus according to claim 1, wherein said print processing error includes a conversion processing

error by said any one of the second converting means, a transfer error of said print control information which is converted by said any one of the second converting means, and an engine operation error of any selected
5 one of the printing apparatuses.

3. An apparatus according to claim 1, further comprising:

10 storing means for storing said independent data converted by said first converting means;

setting means for setting, every printing apparatus, the printing apparatus of a next priority to which said independent data stored in said storing means should be transferred when said print processing
15 error occurs; and

memory means for storing a list of the printing apparatuses of a next priority which have been set by said setting means and to which said independent data should be transferred,

20 and wherein said control means selects any one of said second converting means corresponding to another printing apparatus set in the list of the printing apparatuses of the next priority stored in said memory means.

25

4. An apparatus according to claim 1, wherein said printing apparatus includes a local printer and network

printers.

5. An apparatus according to claim 4, wherein said network printers include:

5 a first network printer which is connected to said predetermined communication medium via a server; and

a second network printer which is directly connected to said predetermined communication medium.

10 6. A data processing method of a print control apparatus which can communicate with a plurality of printing apparatuses via a predetermined communication medium, comprising:

a first converting step of converting drawing
15 information which is required from an application into independent data which does not depend on each of said printing apparatuses;

a plurality of second converting steps of
converting said independent data converted by said
20 first converting step into print control information that is peculiar to the printing apparatus that is selected and transferring said print control information to each corresponding printing apparatus;

a discriminating step of discriminating an
25 occurrence of a print processing error by monitoring a print processing state of any one of said printing apparatuses for a time interval from a start of the

converting process by any one of said second converting steps; and

5 a selecting step of selecting any one of the second converting steps corresponding to the set other printing apparatus when it is determined by said discriminating step that said print processing error has occurred in said any one of the printing apparatuses.

10 7. A method according to claim 6, wherein said print processing error includes a conversion processing error by said any one of the second converting steps, a transfer error of said print control information which is converted by said any one of the second converting
15 steps, and an engine operation error of any selected one of the printing apparatuses.

8. A method according to claim 6, further comprising:

20 a storing step of storing said independent data converted by said first converting step into a memory;

a setting step of setting, every printing apparatus, the printing apparatus of a next priority to which said independent data stored in said memory
25 should be transferred when said print processing error occurs; and

a registering step of registering a list of the

printing apparatuses of a next priority which have been set by said setting step and to which said independent data should be transferred into said memory,

5 and wherein in said selecting step, any one of the second converting steps corresponding to another printing apparatus set in the list of the printing apparatuses of the next priority stored in said memory is selected.

10 9. A method according to claim 6, wherein said printing apparatus includes a local printer and network printers.

15 10. A method according to claim 9, wherein said network printers include:

a first network printer which is connected to said predetermined communication medium via a server; and

a second network printer which is directly connected to said predetermined communication medium.

20

11. A memory medium in which a computer readable program for controlling a data processing apparatus which can communicate with a plurality of printing apparatuses via a predetermined communication medium has been stored, wherein said program comprises:

25 a first converting step of converting drawing information which is required from an application into

independent data which does not depend on each of said printing apparatuses;

5 a plurality of second converting steps of converting said independent data converted by said first converting step into print control information that is peculiar to the printing apparatus that is selected and transferring said print control information to each corresponding printing apparatus;

10 a discriminating step of discriminating an occurrence of a print processing error by monitoring a print processing state for a time interval from a start of the converting process by any one of said second converting steps; and

15 a selecting step of selecting any one of the second converting steps corresponding to the set other printing apparatus when it is determined by said discriminating step that said print processing error has occurred in said one of the printing apparatuses.

20 12. A medium according to claim 11, wherein said print processing error includes a conversion processing error by said any one of the second converting steps, a transfer error of said print control information which is converted by said any one of the second converting steps, and an engine operation error of any selected
25 one of the printing apparatuses.

13. A medium according to claim 11, wherein said program further comprises:

a storing step of storing said independent data converted by said first converting step into a memory;

5 a setting step of setting, every printing apparatus, the printing apparatus of a next priority to which said independent data stored in said memory should be transferred when said print processing error occurs; and

10 a registering step of registering a list of the printing apparatuses of a next priority which have been set by said setting step and to which said independent data should be transferred into said memory,

and in said selecting step, any one of the second
15 converting steps corresponding to another printing apparatus set in the list of the printing apparatuses of the next priority stored in said memory is selected.

14. A medium according to claim 11, wherein said
20 printing apparatus includes a local printer and network printers.

15. A medium according to claim 14, wherein said network printers include:

25 a first network printer which is connected to said predetermined communication medium via a server; and

a second network printer which is directly

connected to said predetermined communication medium.

16. An apparatus according to claim 1, further comprising second discriminating means for
5 discriminating a compatibility between the printing apparatus of the next priority selected by said selecting means and a printing apparatus of a previous priority,

and wherein said control means transfers the
10 converted print control information to the printing apparatus of the next priority when it is determined by said second discriminating means that there is the compatibility between the printing apparatus of the next priority and the printing apparatus of the
15 previous priority.

17. A method according to claim 6, further comprising:

a second discriminating step of discriminating a
20 compatibility between the printing apparatus of the next priority selected by said selecting step and a printing apparatus of a previous priority; and

a transferring step of transferring the converted
25 print control information to the printing apparatus of the next priority when it is determined by said second discriminating step that there is the compatibility between the printing apparatus of the next priority and

the printing apparatus of the previous priority.

18. A medium according to claim 11, wherein said program further comprises:

5 a second discriminating step of discriminating a compatibility between the printing apparatus of the next priority selected by said selecting step and a printing apparatus of a previous priority; and

10 a transferring step of transferring the converted print control information to the printing apparatus of the next priority when it is determined by said second discriminating step that there is the compatibility between the printing apparatus of the next priority and the printing apparatus of the previous priority.

15

19. An apparatus according to claim 1, further comprising:

20 means for, when the print in said printing apparatus is unsuccessfully completed and when the print cannot be performed even in the printing apparatus on an output destination side after the change, notifying the user of such a fact; and

25 means for allowing the user to select whether the subsequent print is continued or not and, when the user selects the stop of the print, allowing the printing apparatus before the change to re-execute the print.

20. An apparatus according to claim 19, further comprising means for modifying print data which is sent to the printing apparatus on the basis of the data that does not depend on the printing apparatus and

5 substituting a print instruction of the user in the case where the print instruction of the user cannot be executed because of a shortage of an ability of the printing apparatus after the change.

10 21. A method according to claim 6, further comprising the steps of:

when the print in said printing apparatus is unsuccessfully completed and when the print cannot be executed even in the printing apparatus on an output
15 destination side after the change, notifying the user of such a fact; and

allowing the user to select whether the subsequent print is continued or not and, when the user selects the stop of the print, allowing the printing apparatus
20 before the print to re-execute the print.

22. A method according to claim 21, further comprising the step of modifying print data which is sent to the printing apparatus on the basis of the data
25 that does not depend on the printing apparatus and substituting a print instruction of the user in the case where the print instruction of the user cannot be

executed because of a shortage of an ability of the printing apparatus after the change.

23. A computer readable memory medium to store a
5 computer program which enables an arbitrary printing apparatus to execute a print, wherein said program comprises the steps of:

converting data which is formed by print control means and does not depend on a printing apparatus into
10 print data to said arbitrary printing apparatus;

transmitting said print data to the printing apparatus;

monitoring a state until a completion of the print of said transmitted print data;

15 when said print is unsuccessfully completed, changing a printing apparatus on an output destination side on the basis of said data which does not depend on the printing apparatus, converting the print data into the print data to the printing apparatus after the
20 change, and executing the print;

when a print instruction of the user before said change cannot be executed as it is by the printing apparatus on the output destination side after the change, notifying the user of such a fact; and

25 allowing the user to select whether the subsequent print is continued or not and, when the user selects the stop of the print, allowing the printing apparatus

before the change to re-execute the print.

24. A medium according to claim 23, wherein said
program further comprises the step of, when the print
5 instruction of the user cannot be executed because of a
shortage of an ability of the printing apparatus after
the change, modifying the print data that is sent to
the printing apparatus on the basis of said data which
does not depend on the printing apparatus and
10 substituting the print instruction of the user.

25. An apparatus according to claim 1, wherein said
independent data is a drawing object.

15 26. A method according to claim 6, wherein said
independent data is a drawing object.

27. A medium according to claim 11, wherein said
independent data is a drawing object.

20

28. A medium according to claim 23, wherein said
independent data is a drawing object.